Docket No.: MSFT-1/794   App. No.: Not yet assigned   Filed: Herewith
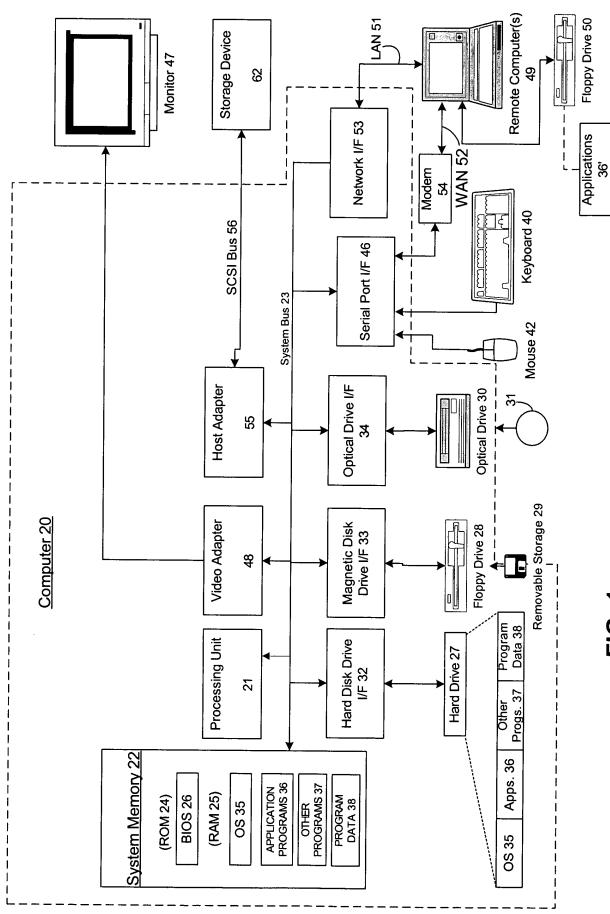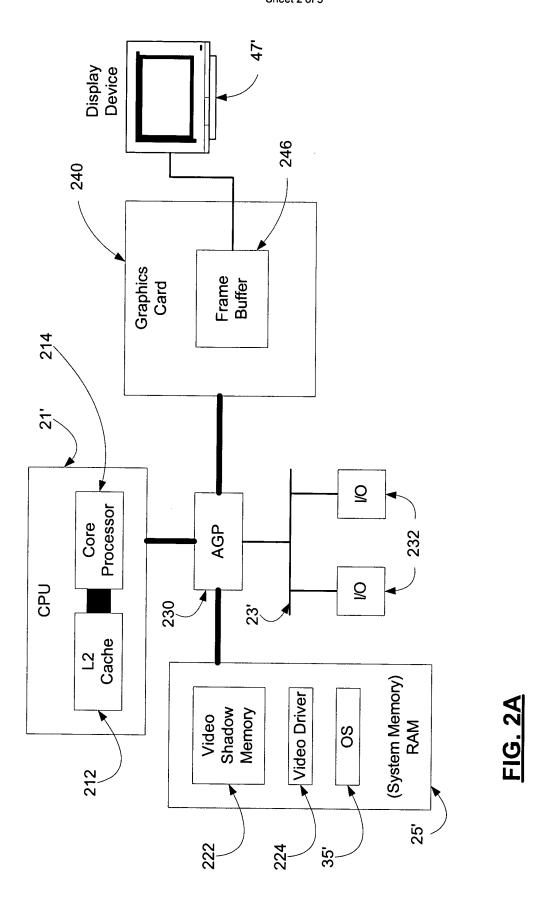
A COMPUTER SYSTEM BY BY-PASSING THE GRAPHICAL PROCESSING UNIT AND
RENDERING GRAPHICS IN MAIN MEMORY
Inventor: Donald D. Karlov   Attorney: Richard W. Knight   Phone: (215) 568-3100
Sheet 1 of 5

FIG. 1

FIG. 2A

Display Device

47'

240

Graphics Card

Frame Buffer — 246

VRAM Shadow Memory — 244 / 248

VRAM

GPU — 242

214

21'

CPU

Core Processor

L2 Cache

212

AGP

230

23'

I/O

I/O

232

Video Driver — 224

OS — 35'

(System Memory) RAM

25'

FIG. 2B

... ... App. No.: not yet assigned Filed: Herewith

... ... IN A COMPUTER SYSTEM BY BY-PASSING THE GRAPHICAL
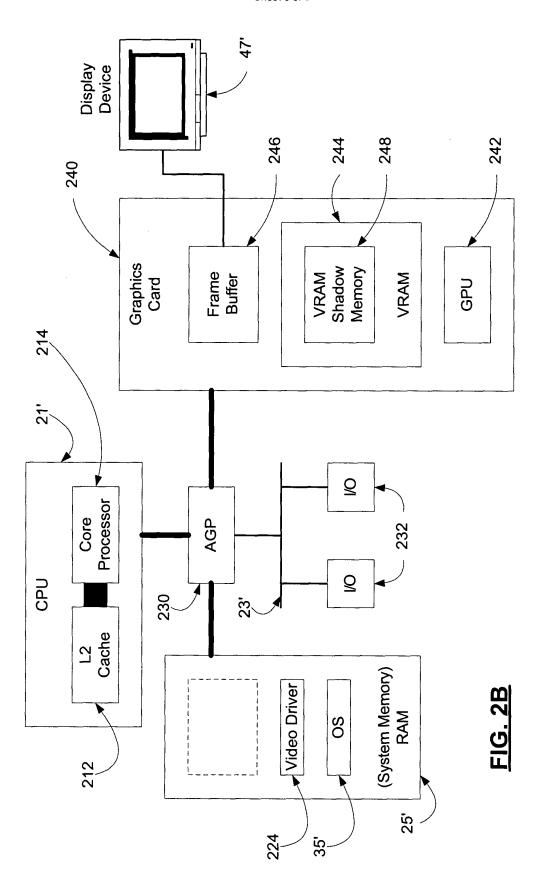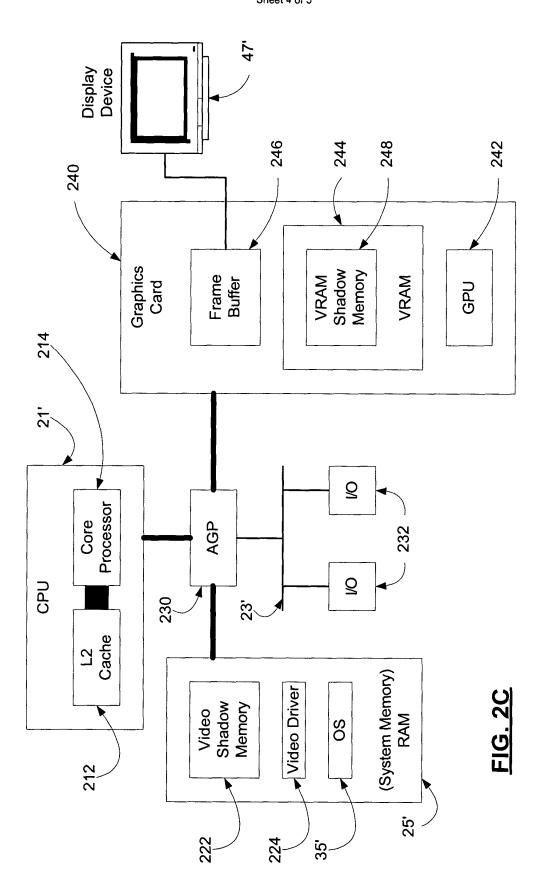PROCESSING UNIT AND RENDERING GRAPHICS IN MAIN MEMORY
Inventor: Donald D. Karlov   Attorney: Richard W. Knight   Phone: (215) 568-3100
Sheet 4 of 5

Display Device

47'

Graphics Card

240

Frame Buffer

246

VRAM Shadow Memory

244

248

VRAM

GPU

242

214

21'

CPU

Core Processor

L2 Cache

212

AGP

230

23'

I/O

I/O

232

Video Shadow Memory

222

Video Driver

224

OS

35'

(System Memory) RAM

25'

FIG. 2C

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GRAPHICS IN A COMUTER SYSTEM BY BY-PASSING THE GRAPHICAL
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FIG. 3

FIG. 4